

REMARKS

Claims 1 and 8-10 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Wook (US 5,894,136), and claims 1-7 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Shin (US 5,828,433). Applicants respectfully traverse these rejections as being based upon references that neither teach nor suggest the novel combination of features recited in independent claim 1, and hence dependent claims 2, 3 and 5-10.

Independent claim 1 recites an array substrate for a liquid crystal display device including “a data line including a first data line having a first width and a second data line having a second width overlying the first data line, the second width is larger than the first width.” In contrast to Applicants’ claimed invention, Wook apparently teaches a chromium data line 9 formed overlying an n-type amorphous silicon layer 8. Thus, Applicants respectfully assert that the n-type amorphous silicon layer 8 of Wook cannot be considered “a first data line,” as claimed. Moreover, Applicants respectfully assert that one of ordinary skill in the art would not look to Wook for teaching that the n-type amorphous silicon layer 8 is a data line, but is merely an ohmic contact layer.

The Office Action (see Response to Arguments) alleges that “[f]or Wook, the amorphous silicon layer is still a first data line because it is connected to and part of the chromium data line 9.” Applicants respectfully disagree. Wook explicitly discloses (col. 3, line 67 to col. 4, line 2) that the amorphous silicon layer 8 is formed on a portion where the data line 9 is to be formed, wherein the data line 9 is formed to be narrower than the amorphous silicon layer 8. Thus, Wook explicitly teaches two different structures made of different materials functioning as two separate entities.

In further contrast to Applicants' claimed invention, Shin teaches an ITO electrical contact 6A that contacts an end portion of a source pad 2A. Thus, Applicants respectfully assert that the source pad 2A of Shin cannot be considered "a first data line," as claimed. Moreover, Applicants respectfully assert that one of ordinary skill in the art would not look to Shin for teaching that the source pad 2A is a data line, but merely a pad region to make electrical contact to a source line.

Moreover, Applicants respectfully assert that the Office Action's reasoning that since two elements are electrically connected, then the two elements may be considered as one single element is illogical and contrary to the "broadest reasonable standard" to be used during examination. For example, using the Office Action's present reasoning, then Wook must teach the pixel electrode 11 is also a data line since it is electrically connected, via source/drain electrodes 9a/9b and a channel region, to the data line 9. Similarly, then Shin must teach that the pixel electrode 9 is also a data line since it receives data signals, via source/drain electrodes 7/8 and a channel region, transmitted along the data line 2A. This simply is not the standard by which claims are to be broadly interpreted by the Office, nor is it consistent with the interpretation that those skilled in the art would reach. If it were, then all electrically interconnected elements of a semiconductor structure would be considered by the Office to be the same. Applicants respectfully assert that the interpretation provided by the Office Action, as well as the reasoning, are both arbitrary and capricious.

As set forth in MPEP 2111, "[d]uring patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." Moreover, MPEP 2111 instructs that "[t]he broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. *In re Cortright*, 165

F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999).” Accordingly, Applicants respectfully assert that one of ordinary skill in the semiconductor art, which Applicants are, would not look to Wook to teach or suggest that the amorphous silicon layer 8 and the chromium data line 9 are the same elements. Specifically, Wook clearly discloses that the amorphous silicon layer 8 and the chromium data line 9 are both made of different materials and each have different structures to perform different functions. Thus, Applicants respectfully assert that a skilled artisan would not “reasonably interpret” that Wook teaches a data line comprising the amorphous silicon layer 8 and the chromium layer 9.

Similarly, with regard to Shin, Applicants respectfully submit that not only is the width of the ITO pattern 6A clearly not greater than the width of the source pad 2A, as alleged by the Office Action, but both the ITO pattern 6A and the source pad 2A are made of different materials, each having different structures, and are each disclosed by Shin to perform different functions. Thus, Applicants respectfully assert that a skilled artisan would not “reasonably interpret” that Shin teaches a data line comprising the IT pattern 6A and the source pad 2A.

Thus, Applicants respectfully submit that both Wook and Shin fail to teach or suggest a liquid crystal display device including “a data line including a first data line having a first width and a second data line having a second width overlying the first data line, the second width is larger than the first width,” as recited by independent claim 1, and hence dependent claims 2, 3, and 5-10.

For at least the above reasons, Applicants respectfully submit that claims 1-3 and 5-10 are neither taught nor suggested by either of Wook or Shin. Applicants respectfully assert that the rejections under 35 U.S.C. §102(b) should be withdrawn because the above-discussed novel combinations of features are neither taught nor suggested by any of the applied references.

CONCLUSION

In view of the foregoing, Applicants respectfully request reconsideration and timely allowance of the pending claims. Should the Examiner believe that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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